Waste Management Division

U.S. Department of Energy • Richland Operations Office

The Waste Management Division (WMD) provides an integrated management system for the treatment , storage , and disposal of solid waste; storage of radioactive cesium and strontium capsules; and treatment and disposal of liquid effluents. WMD also manages specialized support services provided to other Hanford organizations, including waste generator services and environmental services.

The Central Waste Complex in the 200-West Area provides compliant interim storage for containerized low-level, mixed low-level, and transuranic wastes awaiting treatment and final disposal.

The Low-Level Burial Grounds (LLBG) are used for disposal of low-level waste (LLW) from the Hanford Site and offsite generators. Six LLBGs are located in the 200 West Area, and two in the 200 East Area. State and EPA compliant trenches are used for disposal of Land Disposal Restriction-compliant mixed low-level waste (MLLW). One trench in the LLBG is permitted for the disposal of defueled naval reactor compartments.

WMD also manages solid mixed waste treatment, waste verification and repackaging, and decontamination services. The Waste Receiving and Processing Facility (WRAP), the T Plant Complex and offsite contractors are used to

Initiated onsite MLLW disposal (first in the DOE Complex) in the mixed waste trench over a year and a half early (M-91-13).

1999 Accomplishments

Disposed of a wide variety of LLW (209,000 ft^3) in the LLBG supporting Hanford Site and DOE Complex cleanup missions. *Top Right*: *The primary type of trench in the LLBG is the wide bottom configuration.*

Initiated transuranic waste retrieval 14 months ahead of the Tri-Party Agreement milestone (M-91-04).

Initiated processing at WRAP to inspect, treat, and repackage contact-handled TRU waste to ensure that it meets WIPP acceptance criteria (M-91-02).

provide treatment services.

WMD has responsibility for the preparation of Hanford's transuranic wastes for permanent disposal at the Waste Isolation Pilot Plant in New Mexico.

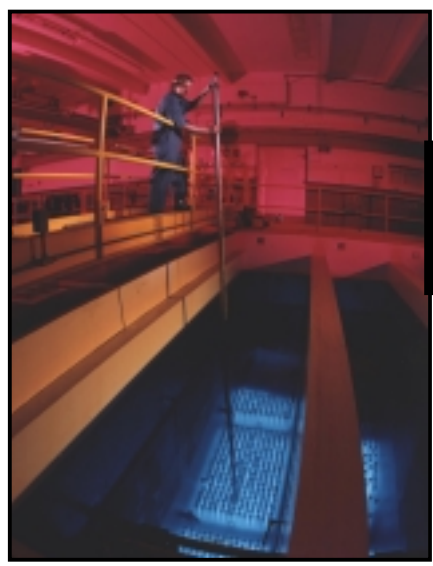
The Waste Encapsulation and Storage Facility stores and monitors highly radioactive cesium and strontium capsules that will eventually be disposed of as high level waste.

Liquid effluents from onsite programs are treated and disposed using WMD facilities in the 200 and 300 Areas. These facilities are the Liquid Effluent Retention Facility, the 200 Area Effluent Treatment Facility, the 200 Area Treated Effluent Disposal Facility, the 242-A Evaporator, and the 300 Area Treated Effluent Disposal Facility.

During FY 1999 Project cost efficiencies funded $6.9M of previously unfunded work scope and accelerated $600K from FY 2000.

Processed over one million gallons of Office of River Protection tank waste through the 242-A Evaporator to reduce overall tank farm storage requirements.

WMD supports onsite and offsite waste generators through the coordination of planning, characterization, verification, packaging, and certification documentation. WMD's environmental services include technical, planning, permitting, and related regulatory support across the Hanford Site.



WESF Capsule Storage.

Historical Note

The U. S. Department of Energy's Richland Operations Office owns the Hanford Site in southeastern Washington State. Hanford was established during World War II as part of the top secret Manhattan Project to produce plutonium for nuclear weapons. Weapons material production was halted in the late 1980's. The Hanford Site is now engaged in the world's largest cleanup effort to deal with the legacy of radioactive and hazardous wastes that resulted from the plutonium production era. Hanford's cleanup program is regulated by the U. S. Environmental Protection Agency and the Washington Department of Ecology under a long term compliance contract called the Tri-Party Agreement. This agreement sets the framework and timelines on the cleanup work so that Hanford meets current environmental standards. The Waste Management Division has an important role in meeting these environmental laws and standards.